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Hexylresorcinol induces chromosome aberrations in mouse peripheral blood cells

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Abstract

Hexylresorcinol has been demonstrated to induce chromosome aberrations in eukaryotic cells at doses of 0.5, 0.05, and 0.005 mg/g body weight. The metabolic transformation of hexylresorcinol in mice decreases its genotoxic effect. The mutagenic effect is retained for three days only after the administration of the highest dose of hexylresorcinol (0.5 mg/g); during the first two days, lower doses are also genotoxic. Therefore, hexylresorcinol doses lower than 0.5 mg/g body weight are metabolized within two days to the extent precluding the expression of the cytotoxic effect. After a single administration to mice, exogenous hexylresorcinol is transformed at a rate of 0.0025-0.025 mg/day.